### **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: \_

09/892

Source:

Date Processed by STIC:

1902/06

# ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 10/10/2006
PATENT APPLICATION: US/09/892,613D TIME: 08:43:49

Input Set : N:\Crf4\10022006\I892613C.raw
Output Set: N:\CRF4\10102006\I892613D.raw

```
1 <110> APPLICANT: Leung, Shawn Shui-on
 2 <120> TITLE OF INVENTION: REDUCING IMMUNOGENICITIES OF IMMUNOGLOBULINS BY
         FRAMEWORK-PATCHING
 4 <130> FILE REFERENCE: 655
5 <140 > CURRENT APPLICATION NUMBER: US/09/892,613D
 6 <141> CURRENT FILING DATE: 2001-06-27
 7 <160> NUMBER OF SEQ ID NOS: 71
 8 <170> SOFTWARE: PatentIn version 3.3
10 <210> SEO ID NO: 1
11 <211> LENGTH: 369
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12 <212> TYPE: DNA
13 <213> ORGANISM: Artificial Sequence
14 <220> FEATURE:
15 <223> OTHER INFORMATION: FR-patched heavy chaim variable region sequence (Full DNA
         Sequence) formed by joining the N- and C- terminal (SEQ 3 and 6)
17
         halves at the KpeI site.
18 <220> FEATURE:
19 <221> NAME/KEY: V region
20 <222> LOCATION: (1)..(369)
21 <400> SEQUENCE: 1
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22
         tcctgtgcag cctctggatt ctccttcagt atctatgaca tgtcttgggt tcgccaggca
                                                                               120
23
         ccgggaaagg ggctggagtg ggtcgcatac attagtagtg gtggtggtac cacctactat
                                                                               180
24
25
         ccagacactg tgaagggccg attcaccatc tccagagaca atgccaagaa ctccctgtac
                                                                               240
         ctgcaaatga acagtctgag ggtggaggac acagccttat attactgtgc aagacatagt
                                                                               300
26
         qqctacqqta qtaqctacqq qqttttqttt gcttactqgq gccaaqggac tctggtcact
                                                                               360
27
                                                                               369
         qtctcttca
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 123
32 <212> TYPE: PRT
33 <213> ORGANISM: Chimaera sp.
34 <400> SEQUENCE: 2
         Glu Val Gln Leu Leu Glu Ser Gly Gly Leu Val Gln Pro Gly Gly
36
         Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ile Tyr
37
38
         Asp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
39
40
         Ala Tyr Ile Ser Ser Gly Gly Gly Thr Thr Tyr Tyr Pro Asp Thr Val
41
42
         Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
43
                                                  75
44
         Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys
45
```

DATE: 10/10/2006

TIME: 08:43:49

#### Input Set : N:\Crf4\10022006\1892613C.raw Output Set: N:\CRF4\10102006\1892613D.raw 85 90 46 Ala Arg His Ser Gly Tyr Gly Ser Ser Tyr Gly Val Leu Phe Ala Tyr 47 48 105 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser 49 50 52 <210> SEO ID NO: 3 53 <211> LENGTH: 111 54 <212> TYPE: DNA 55 <213> ORGANISM: Artificial Sequence 56 <220> FEATURE: 57 <223> OTHER INFORMATION: N-template is a synthetic sense-strand oligonucleotide encoding amino acide 14-50 of the VH region (SEQ ID No. 2). The template 58 59 is PCR-amplified by two primers (SEQ ID No. 4 and 5) 60 <220> FEATURE: 61 <221> NAME/KEY: V region 62 <222> LOCATION: (1)..(111) 63 <400> SEQUENCE: 3 atgictiggg ticgccaggc accgggaaag gggctggagt gygtcgcata c 65 67 <210> SEO ID. NO: 4 68 <211> LENGTH: 57 69 <212> TYPE: DNA 70 <213> ORGANISM: Artificial Sequence 71 <220> FEATURE: 72 <223> OTHER INFORMATION: 5' Primer is a synthetic sense-strand oligonucleotide encoding 73 amino acid 1-19 of the VH region (SEQ ID No. 2). The 3' end of the primer overlaps with the 5'end of the template by 18 74 75 nucleotides. 76 <220> FEATURE: 77 <221> NAME/KEY: primer bind 78 <222> LOCATION: (1)..(57) 79 <400> SEQUENCE: 4 gaagtgcagc tgctggagtc tgggggaggc ttagtgcagc ctggagggtc cctgagg 82 <210> SEQ ID NO: 5 83 <211> LENGTH: 48 84 <212> TYPE: DNA 85 <213> ORGANISM: Artificial Sequence 86 <220> FEATURE: 87 <223> OTHER INFORMATION: 3' Primer is a synthetic anti-sense-strand oligonucleotide encoding amino acid 43-59 of the VH region (SEQ ID No. 2). The primer overlaps with the template by 21 nucleotides. 89 90 <220> FEATURE: 91 <221> NAME/KEY: primer bind 92 <222> LOCATION: (1)..(48) 93 <400> SEQUENCE: 5 gtaggtggta ccaccaccac tactaatgta tgcgacccac tccagccc 48 96 <210> SEQ ID NO: 6 97 <211> LENGTH: 132 98 <212> TYPE: DNA

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/892,613D

## RAW SEQUENCE LISTING DATE: 10/10/2006 PATENT APPLICATION: US/09/892,613D TIME: 08:43:49

Input Set : N:\Crf4\10022006\1892613C.raw
Output Set: N:\CRF4\10102006\1892613D.raw

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99 <213> ORGANISM: Artificial Sequence
          100 <220> FEATURE:
          101 <223> OTHER INFORMATION: C-terminal is a synthetic sense-strand oligonucleotide
encoding
                              amino acid 68-111 of the VH region (SEQ ID No 2) The template is
          102
                              PCR-amplified by two primers (SEQ ID No 7 and 8)
          103
          104 <220> FEATURE:
          105 <221> NAME/KEY: V region
          106 <222> LOCATION: (1)..(132)
          107 <400> SEQUENCE: 6
                              ttcaccatct ccagagacaa tgccaagaac tccctgtacc tgcaaatgaa cagtctgagg
                                                                                                                                                                                 60
          108
                              qtqqaqqaca cagccttata ttactgtgca agacatagtg gctacggtag tagctacggg
                                                                                                                                                                               120
          109
                              gttttgtttg ct
                                                                                                                                                                               132
          110
          112 <210> SEQ ID NO: 7
          113 <211> LENGTH: 60
          114 <212> TYPE: DNA
          115 <213> ORGANISM: Artificial Sequence
          116 <220> FEATURE:
         117 <223> OTHER INFORMATION: 5' Primer is a synthetic sense-strand oligonuclectide
                                                                                                                    The second of th
encoding
                              amino acid 55-74 of the VH region (SEQ ID No 2). The 3' end of
         118
                              the primer overlaps with the 5'end of the template by 21
          119
          120
                              nucleotides.
          121 <220> FEATURE:
          122 <221> NAME/KEY: primer bind
          123 <222> LOCATION: (1)..(60)
          124 <400> SEQUÉNCE: 7
                              ggtggtacca cctactatcc agacactgtg aagggccgat tcaccatctc cagagacaat
          127 <210> SEQ ID NO: 8
          128 <211> LENGTH: 57
          129 <212> TYPE: DNA
          130 <213> ORGANISM: Artificial Sequence
          131 <220> FEATURE:
          132 <223> OTHER INFORMATION: 3' Primer is a synthetic anti-sense-strand oligonucleotide
                              encoding amino acid 105-123 of the VH region (SEQ ID No 2). The
          133
                              primer and the template overlaps by 21 nucleotides.
          134
          135 <220> FEATURE:
          136 <221> NAME/KEY: primer bind
          137 <222> LOCATION: (1)..(57)
          138 <400> SEQUENCE: 8
                                                                                                                                                                                 57
                              tgaagagaca gtgaccagag tcccttggcc ccagtaagca aacaaaaccc cgtagct
          141 <210> SEO ID NO: 9
          142 <211> LENGTH: 321
          143 <212> TYPE: DNA
          144 <213> ORGANISM: Artificial Sequence
          145 <220> FEATURE:
          146 <223> OTHER INFORMATION: FR-patched light chaim variable region sequence formed by
joining
                              the N- and C- terminal (SEQ 11 and 14) halves at the KpeI site.
          147
          148 <220> FEATURE:
          149 <221> NAME/KEY: V region
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150 <222> LOCATION: (1)..(321)

RAW SEQUENCE LISTING DATE: 10/10/2006
PATENT APPLICATION: US/09/892,613D TIME: 08:43:49

Input Set : N:\Crf4\10022006\I892613C.raw
Output Set: N:\CRF4\10102006\I892613D.raw

```
151 <400> SEQUENCE: 9
              gatatecaga tgacecagte tecatectee etgtetgeet etgtgggaga cagagteace
                                                                                      60
    152
              attaqttqca qqqcaaqtca qqacattaqc aattatttaa actqqtatca gcagaaacca
                                                                                      120
    153
              ggtaaggctc cgaaactcct gatctactac actagtatat tacactcagg agtcccatca
                                                                                      180
    154
                                                                                      240
              aggttcagtg gcagtgggtc tggaacagaa tttactctca ccattagctc cctgcagcca
    155
                                                                                      300
              gaagattttg ccacttactt ttgccaacag ggtaatacgc ttccgtggac gttcggtgga
    156
              ggcaccaagg tggaaatcaa a
                                                                                      321
    157
    159 <210> SEQ ID NO: 10
    160 <211> LENGTH: 107
    161 <212> TYPE: PRT
    162 <213> ORGANISM: Chimaera sp.
     163 <400> SEQUENCE: 10
              Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
    164
    165
                                                    10
              Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
    166
     167
                                               25
                           20
              Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
    168
                       35
                                                                45
     169
               Tyr Tyr Thr Ser Ile Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
     170
                                       55 A.
     171
                                                            60
    172
               Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
     173
                                                        75
                                   70
               Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
     174
     175
    176
               Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
     177
                           100
                                               105
     179 <210> SEQ ID NO: 11
     180 <211> LENGTH: 108
     181 <212> TYPE: DNA
     182 <213> ORGANISM: Artificial Sequence
     183 <220> FEATURE:
     184 <223> OTHER INFORMATION: N-template is a synthetic sense-strand oligonucleotide
encoding
               amino acid 11-46 of the VL region (SEQ ID No. 10). The template
    185
               is PCR-amplified by two primers (SEQ ID No. 12 and 13)
     186
     187 <220> FEATURE:
     188 <221> NAME/KEY: V_region
     189 <222> LOCATION: (1)..(108)
     190 <400> SEQUENCE: 11
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               ctgtctgcct ctgtgggaga cagagtcacc attagttgca gggcaagtca ggacattagc
    191
               aattatttaa actggtatca gcagaaacca ggtaaggctc cgaaactc
                                                                                      108
     192
     194 <210> SEO ID NO: 12
     195 <211> LENGTH: 51
     196 <212> TYPE: DNA
     197 <213> ORGANISM: Artificial Sequence
     198 <220> FEATURE:
    199 <223> OTHER INFORMATION: 5' Primer is a synthetic sense-strand oligonucleotide
encoding
     200
               amino acid 1-17 of the VH region (SEQ ID No 10). The 3' end of
     201
               the primer overlaps with the 5'end of the template by 21
    202
              nucleotides.
```

## RAW SEQUENCE LISTING DATE: 10/10/2006 PATENT APPLICATION: US/09/892,613D TIME: 08:43:49

Input Set: N:\Crf4\10022006\I892613C.raw
Output Set: N:\CRF4\10102006\I892613D.raw

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203 <220> FEATURE:
     204 <221> NAME/KEY: primer bind
     205 <222> LOCATION: (1)..(51)
     206 <400> SEQUENCE: 12
               qatatccaqa tqacccaqtc tccatcctcc ctqtctqcct ctqtgggaga c
                                                                                       51
     209 <210> SEQ ID NO: 13
    210 <211> LENGTH: 40
    211 <212> TYPE: DNA
     212 <213> ORGANISM: Artificial Sequence
     213 <220> FEATURE:
     214 <223> OTHER INFORMATION: 3' Primer is a synthetic anti-sense-strand oligonucleotide
               encoding amino acid 40-53. The primer and the template overlaps
     215
              by 18 nucleotides.
     216
     217 <220> FEATURE:
     218 <221> NAME/KEY: primer bind
     219 <222> LOCATION: (1)..(40)
     220 <400> SEQUENCE: 13
               atatactagt gtagtagatc aggagtttcg gagccttacc
                                                                                       40
     221
     223 <210> SEQ ID NO: 14
                                                             processor on processor of
    224 <211> LENGTH: 120
     225 <212> TYPE: DNA
     226 <213> ORGANISM: Artificial Sequence
     227 <220> FEATURE:
     228 <223> OTHER INFORMATION: C-terminal is a synthetic sense-strand oligonucleotide
encoding
               amino acid 59-98 of the VH region (SEQ ID No 10) The template is
     229
               PCR-amplified by tow primers (SEQ ID No 15 and 16)
     230
     231 <220> FEATURE:
     232 <221> NAME/KEY: V_region
     233 <222> LOCATION: (1)..(120)
     234 <400> SEQUENCE: 14
                                                                                       60
    235
               ccatcaaggt tcagtggcag tgggtctgga acagaattta ctctcaccat tagctccctg
               cagccagaag attttgccac ttacttttgc caacagggta atacgcttcc gtggacgttc
                                                                                      120
     236
     238 <210> SEQ ID NO: 15
     239 <211> LENGTH: 49
     240 <212> TYPE: DNA
     241 <213> ORGANISM: Artificial Sequence
     242 <220> FEATURE:
     243 <223> OTHER INFORMATION: 5' Primer is a synthetic sense-strand oligonucleotide
encoding
               amino acid 50-65 of the VH region (SEQ ID No. 10). The 3' end of
     244
               the primer overlaps with the 5'end of the template by 21
     245
               nucleotides
     246
     247 <220> FEATURE:
     248 <221> NAME/KEY: primer bind
     249 <222> LOCATION: (1)..(49)
     250 <400> SEQUENCE: 15
               ctacactagt atattacact caggagtccc atcaaggttc agtggcagt
                                                                                       49
     253 <210> SEQ ID NO: 16
     254 <211> LENGTH: 48
     255 <212> TYPE: DNA
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/10/2006 PATENT APPLICATION: US/09/892,613D TIME: 08:43:50

Input Set: N:\Crf4\10022006\I892613C.raw
Output Set: N:\CRF4\10102006\I892613D.raw

#### Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

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Seq#:1; Line(s) 15
   Seq#:3; Line(s) 57
  Seq#:4; Line(s) 72
   Seq#:5; Line(s) 87
   Seq#:6; Line(s) 101
   Seq#:7; Line(s) 117
   Seq#:8; Line(s) 132
   Seg#:9; Line(s) 146
   Seg#:11; Line(s) 184
   Seq#:12; Line(s) 199
   Seg#:13; Line(s) 214
   Seq#:14; Line(s) 228
   Seq#:15; Line(s) 243
   Seq#:16; Line(s) 258
.. Seq#:17; Line(s) 272
  Seq#:19; Line(s) 314
   Seq#:20; Line(s) 329
   Seq#:21; Line(s) 344
   Seq#:22; Line(s) 358
   Seq#:23; Line(s) 374
   Seq#:24; Line(s) 390
   Seq#:25; Line(s) 404
   Seq#:27; Line(s) 443
   Seq#:28; Line(s) 459
   Seq#:29; Line(s) 474
   Seq#:30; Line(s) 488
   Seq#:31; Line(s) 503
   Seg#:32; Line(s) 518
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VERIFICATION SUMMARY

DATE: 10/10/2006

PATENT APPLICATION: US/09/892,613D

TIME: 08:43:50

Input Set : N:\Crf4\10022006\1892613C.raw
Output Set: N:\CRF4\10102006\1892613D.raw

L:5 M:270 C: Current Application Number differs, Wrong Format